DEVOTED TO AGRICULTURE AND ALL ITS KINDRED ARTS AND SCIENCES.

Agriculture not only gives riches to a nation, but the only riches she can call her own.—JOHNSON.

VOL. II. SATURDAY, JULY 20, 1850. NO. 15.

S. W. COLE, EDITOR. QUINCY HALL, BOSTON. J. NOURSE, PROPRIETOR.

STRAWBERRIES.

REMARKS ON DIFFERENT VARIETIES.

The strawberry crop is becoming an important one, both to the cultivator and consumer. It is a very delicious fruit, admirably combining rich acid and saccharine qualities, which render it very welcome in hot weather; and its being the earliest fruit in the season gives it an additional importance.

Every family in the country should have a good supply of strawberries, they are so delicious, and so much more palatable and wholesome than meat, butter, rich cake, &c. We would rather have for supper a piece of good bread, with fine-flavored strawberries, tempered with sugar, than the most costly and richest dishes that the wide world can afford.

So valuable is this fruit, that every farmer, and every one who has room in his garden, should raise it for his own family, at least, unless he is fortunately in a region where the delicious wild strawberry abounds. And we trust that so much attention is now given to the cultivation of this fruit for the market, that every family can have a supply at moderate prices.

The farmer should consider that a bed of strawberries, two rods long and one wide, yielding a fair crop, will give him two quarts a day for twelve days, and twice that quantity if the yield be very large. A gardener informed us that from less than one square rod he had twenty quarts. But little land, manure, and time, is required to afford this most delicious and healthful luxury — to children a most delightful treat. Who will neglect to cover their bright faces with smiles of joy as they partake of the delicious feast, or lose the opportunity of illustrating the beneficence of our heavenly Parent in his bountiful gifts, and the kindness of friends in providing such fine delicacies to cheer their grateful hearts?

With these preliminary remarks on the importance of the strawberry, and the advantages of extending its culture, we proceed to give an account of a number of the most prominent varieties in general cultivation, or which seem to have claims to this distinction. We have often said that the cheapest of all improvements in the cultivation of vegetables, or rearing of animals, was the selection of the best varieties; for, although this may cost a little more at first, a beginning may be made, and soon enough will be produced for one's own supply, and perhaps a surplus that will bring an extra price, and make an ample return for the original stock.

We cultivate strawberries for our own use, also for the purposes of experiment, that we may test all the varieties that have claims to excellence, in order to learn their hardiness, vigor, the quality of fruit, time of ripening, and various other habits; and to supply a few plants with other nursery productions. In addition, we have examined for years the principal strawberry plantations in this region, also our market, and we confer with the principal cultivators and dealers in this fruit. If these advantages can enable us to give to the cultivators of this fruit any useful information, we do it with pleasure.

Whether we cultivate fruit for our own use, or for the market, the time that each variety ripens is worthy of consideration, in order that we may have fruit in succession, or have it for the market when it will bring the highest price. Our strawberries are on a fine loam, tolerably dry; the immediate location is rather warm, having a southern aspect, but not forward, as it is not far from the water.

The following are the times of ripening of several varieties, which, in regard to comparing one with another, will not differ much from an average of seasons: —

Early Virginia,	June 22
Large Early Scarlet,	" 22
Boston Pine,	" 26
Willey,	" 26
Jenney's Seedling,	" 27
Black Prince,	" 27
Hovey's Seedling,	" 28
Fay's Seedling,	" 28
Wood, or Alpine,	July 1
Newland's Mammoth,	" 1
Milford Native,	" 4

The time named is when the fruit began to ripen, and, generally, it continued about one week. Jenney's continued in use nine or ten days. This table

agrees very nearly with previous experiments, and with the experiments of many other cultivators, in the comparative time of ripening, which is the main subject in view, as it shows the inexperienced how to select so as to have a succession of fruit.

Early Virginia. — This is the best early strawberry generally known in this section. It is one of the principal kinds for main crops, and some cultivate it almost exclusively. The plants are very strong, vigorous, and hardy, enduring the cold of winter, and succeeding well on dry soils, as well as on those rather strong and heavy. The fruit is medial size, very handsome, and of excellent quality, which it retains well after picking. It sells well in the market the next day after it is picked. It is very productive. We have accounts of its yielding some of the largest crops ever produced from any variety. It is nearly perfect in its blossoms, and is a good variety to fertilize pistillate kinds.

Large Early Scarlet is the same as the above.

Boston Pine. — We say in our Fruit-Book, "cultivators give various accounts of it," and we still say the same. Its merits as a market fruit are not well tested. Some extol, others condemn it. This fruit seems to be peculiarly adapted to strong soils, and under high culture, planted in hills, or the plants well thinned, it yields large crops; but if the plants are thick, it sets more fruit than it can perfect. The plants are strong, vigorous, productive, and hardy, enduring our cold winters well. The fruit is quite large, beautiful, and of a sweet, pleasant flavor, as taken from the vines. Some prefer it for its mildness; others give a preference to sub-acid fruits, which in the hot season are admirably adapted for the table, with a little sugar. This fruit becomes insipid soon after it is picked, and does not appear well in market the day after gathering. Some persons think that this fruit will take the place of the Early Virginia; but we think that it is a great mistake, for its quality is not so good for a market fruit, and it ripens so much later, that half of its crop, or more, comes in with Hovey's Seedling, and other late varieties. On the contrary, the Early Virginia comes so early that it is nearly or quite gone when the late kinds come in.

Some say the Boston Pine is *about* as early as the Early Virginia. Now, let us see what a wide difference this little word makes, though it seems to mean almost nothing. The first boxes of Early Virginia brought into this market this season, sold for more than one dollar per box; and when several cultivators brought them in, they sold at fifty cents per box. But when the Boston Pine was ripe, good strawberries sold at twenty cents a box. The Boston Pine is nearly perfect in its flowers.

Willey. — This is a famous strawberry in Ohio, producing large crops of excellent fruit. The plants are remarkably vigorous, hardy, and productive. The fruit is tolerably large, and of excellent quality. We have had but little experience in this variety, having had fruit from it this season only, and have not seen it in cultivation by others. It is very promising, and worthy of trial. Mr. F. R. Elliott, Cleveland, O., a well-known pomologist, raised of this variety 1345 quarts on one fourth of an acre of land. The Willey which we have is pistillate, staminate, and some blossoms are nearly perfect. We have selected pistillate plants, and set them by themselves, and some of them produced staminate plants the next season. This is contrary to the opinions of some horticulturists.

Jenney's Seedling. — This is a new variety, not yet cultivated to much extent, but it is very promising indeed. The plants are strong, vigorous, productive, and hardy, enduring our winters without injury. The fruit is large, very handsome, and of a very high quality. It is sub-acid, and to this some persons object; but as the strawberry is usually used with sugar, and in hot weather, when a little acid mingled with sweet is very acceptable, we think that this will be a very popular fruit. There is no strawberry that we should prefer to this to come immediately after the Early Virginia, for our own use. Time must determine its merits for the market. Mr. Jenney raised, on one fourth of an acre, at the rate of more than 4000 quarts to the acre. This plant is mostly pistillate, but we believe that it yields good crops without a fertilizer.

Black Prince. — Some praise this highly, others condemn it with severity. It has a peculiar flavor, that is pleasant to some, and to others it is offensive. Some amateurs will cultivate it, but we do not think it will be valuable for the market.

Hovey's Seedling. — This is one of the most valuable of strawberries. It has not the vigor and hardiness of the Early Virginia, Willey, and Jenney's Seedling, but it usually endures our cold winters well. When it produces a very great crop, the plants are sometimes rather thin the next season, either from the effects of the winter, or from exhaustion. The size of the fruit is extremely large, the color is beautiful, and the flavor is mild, rich, and excellent. While some persons admire its mildness, others prefer more acid, like Jenney's Seedling, Early Virginia, Willey, &c. This variety is remarkably productive, and, owing to its large size, and the readiness with which the fruit parts from the hull, it is picked with less expense than any other variety. One cultivator in this vicinity had several hands that picked seventy boxes each per day. One acre of land, mostly of this variety, produced 4000 boxes, and the yield was largest from this kind.

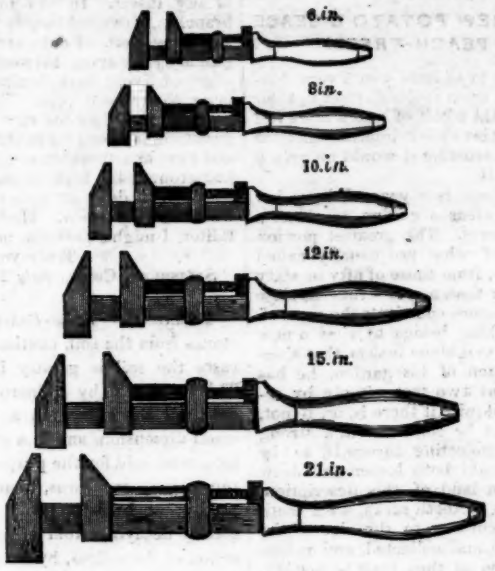
Fay's Seedling. — We prefer Hovey's or Jenney's to this, and they ripen about the same time.

Wood, or Alpine. — This is an old variety, which held an important place as a late strawberry before the introduction of Hovey's, and other late varieties.

Newland's Mammoth. — All the mammoth about this is the *mammoth humbug* which George Newland, of Palmyra, N. Y., played off in selling the old Wood strawberry for a new and superior variety.

Milford Native. — A good fruit, and very late, but neither vigorous nor productive.

Richardson's Seedlings we have not thoroughly tested. His Late promises to be valuable, as it ripens after most others are gone.



ADJUSTABLE SCREW WRENCHES.

The above cut represents the Patent Adjustable Screw Wrench, invented by L. Coe, of Worcester, in its various sizes. By the arrangement, combination, and proportions of the several parts, these wrenches are remarkably convenient, efficient, substantial, and durable. As the jaws are movable, they are adapted to general use, as they may be readily applied to a broad or narrow substance. The farmer and mechanic will find it the most convenient article of the kind, from its application to all purposes to which various wrenches of a different construction are adapted.

The screw that moves the sliding jaw is very easily operated and properly adjusted to any nut, screw, or other substance, by the thumb of the hand that holds the wrench, while the other hand may be engaged. This article is very neatly finished, is very handy from its size, and the price is moderate. The prices range from $1,12½ to $3,50. This wrench is taking the place of all other screw wrenches. They are sold, wholesale and retail, by Messrs. Ruggles, Nourse, Mason, & Co., Quincy Hall.

STACKING HAY.

In many portions of our country more than one half of the hay is "stacked out;" especially is this true of the newer portions of this state. Now, effectually to secure this vast amount of fodder is an object greatly to be desired. For thirty years I have been in the habit of stacking hay. I have observed also the method by which others put up their hay. The common way is to build a stack, top it up, and let it remain a week or two, until it has become somewhat flattened by settling; then put another top upon it, and still, perhaps, the third, before it is left to remain for winter use. By this method, from half to three quarters, and even a ton, is spoiled for the use of stock. The philosophy of the thing is this: The sweat of the hay rises to the surface of the stack, and lodges on the outer or upper surface; putting on the second top shuts this moisture in, and the hay of the first top is spoiled in consequence of it. The second top is spoiled by its exposure to the weather; thus a double loss is sustained by the over-careful farmer to protect his hay. My method is to make but one top. If the weather is fair, build the stack to the "shoulders," (that is, to the point where the top begins to form,) let it remain a day or two to settle, then finish up the stack; a little swamp is best for the top. When built in this way, I have found, on removing the first lock in winter, the hay below as bright as when it was first put up. If there is a prospect of storm, some boards may be placed on the stack so as to protect it while it is being settled, as farmers say. If no boards are to be had, and bad weather is at hand, top up your stack; or, if you get a tolerably fair top, never touch it again; if not, throw off your whole top when the weather becomes fair, and finish out your stack. In this way, you need not have any hay injured in the least, only just so much as is exposed to the weather. R. R., Jr.

Clinton, Lenawe Co., Michigan, 1850.

— *Phil. Dol. Newspaper.*

VIRTUES OF SMART WEED.

It is almost a sure remedy in a case of colic. Steep and drink the same as in any other herb tea. In the next place, it is worth five dollars per hundred for a stock of cattle, if it is cut and well cured when in full bloom. Give an ox, cow, or horse one pound per week during the time they are up to hay, and it will keep their bowels and hide loose. It is an excellent physic. If a horse has one pound per week, there is no danger of his having bots or worms of any kind; and they will eat it sooner than they will the best of hay.

A righteous man regardeth the life of his beast.

For the New England Farmer.

STONE-RAKES — A NEW POTATO DISEASE — GUM FROM PEACH-TREES.

Mr. Cole: Permit me to address you a very miscellaneous letter, though upon topics distinct in their character, and which would admit of much more full consideration. My object is to elicit information from those qualified to give it, trusting it would be prized by others as well as myself.

Stone-Rakes. — For about two years I have bestowed no small labor to clear a garden, of about a quarter of an acre, of stones. The greatest portion of the ground consists of what are usually called cobble stones, of all sizes, from those of fifty or sixty pounds, to those no larger than a pea. Indeed, close examination shows that stones constitute the mass of the earth. Every ploughing brings to view a new crop. One of my oldest neighbors insists that since commencing the cultivation of his garden, he has lowered the ground about two feet, simply by removing stones. Now, I inquire if there is, or, if not, whether there should not be constructed, a strong stone-rake, with teeth projecting forwards, to be drawn by oxen, which would both loosen and draw together the stones, upon land of this description. Let there be different sets of teeth racks, with teeth at different distances, according to the size of the stones to be loosened up and collected, and means provided for inserting them as they shall be needed. A loaded common harrow, to follow a subsoil plough, (provided such a plough could be made to penetrate sufficiently deep in such soil,) might throw up many of the stones; but I ask for the means of not merely loosening, but of gathering them. But what shall we do with the stones? I venture to say, draw them off upon stone-boats, and make them into *dobie* fences, as they make dobie houses at the west, or build houses with them, if you please.

A New Potato Disease. — Last year some bulbs of my potatoes, called Sand Lakes, at an early stage of their growth, showed disease in the stalk. The lower leaves turned brown, and decayed and died first, and then the other leaves successively did the same, and the tops of the stalks, though green, refused to expand naturally, and grew only in a curled, dwarfish form, and all the stalks, after a sickly, stunted growth, prematurely died, while the hills adjoining flourished, and continued growing with a healthy appearance, generally, through the season. I found the dwarf and diseased hills, when I dug them, yielded a very few and small potatoes, but free from rot. I had manured well with stable manure. This season a far larger number of the hills are struck with the same disease, and are going the same way. I have just pulled up and examined one of them, but can detect nothing peculiar in the seed planted, and find no evidence that the effect is produced by insects. My Mercers and other kinds do not yet show signs of this disease. If any explanation of it can be given, I would be glad to obtain it. It should be remarked that, lacking stable manure, I have manured with the best deposit I could get from the road, and put a half pint, perhaps, of unleached ashes, mixed together with the soil, in each hill. Has any trace of this disease, unattended by rot, hitherto attracted attention? It is sure very much to diminish my little crop. I would know if planting, year after year, the same ground with potatoes, has any thing to do with the effect in this case. I doubt it, because, in a newly-turned piece of turf land, I find one or more hills similarly affected.

Gum from the Peach-Tree. — Wounds of insects I know let out gum; but it seems certain to me that there must be another cause. I have a young tree, a blood peach from Long Island, and it has a wonderful propensity to gumming, where I can find no trace of any insect. In the fork of the two principal branches, it exuded largely last summer, and the bark adjoining died. I cut out the dead bark, and found gummy juice lying between it and the wood. The edges of living bark healed over, but they are propense to send out gum. The tree has set with a few peaches, and vigorous new shoots are growing, but gumming is going on at the parting of the branches, and here and there gum appears upon the body, and just around, the bark is sure to be loosened from the wood, and dead or dying. The cause and cure I would gladly learn. Had I your Fruit-Book, Mr. Editor, I might, perhaps, not need to ask.

Truly yours, J. LEE.

Salisbury, Conn., *July* 2.

Remarks. — *Stone-Rakes.* — In removing small stones from the soil, caution is necessary, as in many cases the soil is greatly injured by their removal. This is shown by numerous experiments. In one case, all the stones on a piece of land down to a small dimension, and to a certain depth from the surface, were sold for the purpose of making a road; and the consequence was, that land which was before productive became poor. Small stones are constantly decaying from exposure to the air, from the action of the soil, as, by deep ploughing or subsoiling, fresh and new elements are brought in contact with them; and by the application of manures, particularly such as ashes or potash, the stones become corroded, and furnish fertilizing ingredients as food for plants.

In tillage, stones are a great inconvenience; but in mowing, small ones, if not extremely thick, may be pressed into the earth by the use of the roller. It is difficult to determine how far small stones should be removed from tillage lands. Where there is a plenty of gravel or sand, small stones are less useful than they are in soils where clay, marl, or mud abounds.

New Potato Disease. — We have Peach Blow potatoes that have been affected in the same manner as named by our correspondent. The Sand Lake potato resembles the Peach Blow, and what he calls the former may be the latter. The first year we planted the Peach Blow, they were on new land, and they were healthy. The next year they were on old land, but which was not in potatoes the previous year, and they were much affected by disease. The next year we planted them in several places, mostly where potatoes had been raised the previous season, and of the early-planted on dry land, nearly half of the hills failed, while by the side of them other hills, of the same variety, were perfectly healthy and productive. We planted some late on wet land, and about one tenth part failed.

We examined carefully for insects, but could discover no cause of the disease. The tops grew very slowly soon after they came up, the leaves curled up, and the most of them died; yet they lingered along, and produced a few potatoes about the size of robins' eggs. We found this effect from planting large and small seed, cut and whole.

We planted about fifty kinds of standard potatoes, and one hundred and fifty seedling varieties; and none were affected with this disease but the Peach

Blow, and we have excluded it from our list, as unworthy of cultivation. Others have given the same account of this potato.

Gum from Peach-Trees. — Sometimes gum runs from peach-trees by reason of insects, as the worm, for instance, eating around the tree, between the bark and wood, at or just below the surface; but gum often runs from peach-trees from causes not distinctly known. Trees that seem perfectly healthy in early spring, and are very smooth, and apparently in a vigorous condition, are soon seriously affected by the gum running from various parts of the body and branches, which indicates a decline or speedy death of the tree.

In this climate the peach is far from its native and peculiar home, if we regard its origin; and it is seriously affected by our cold or changeable winters, and by our cool springs, constantly varying in temperature, or remaining constantly cool and uncongenial to plants originally from a much warmer clime. The best remedy for this evil is the same as we should recommend for the potato disease which has been named: Examine carefully, and cultivate the most hardy varieties of fruits and vegetables. Information on these subjects from our correspondents will be acceptable. — Ed.

For the New England Farmer.

VALUE OF LIME IN AGRICULTURE.

Friend Cole: As yet we hardly know whether to count lime on our list of manures or not. We do not know how, and when, and where it will be beneficial and *profitable* for us to apply it. I notice that A. J. Downing, in his Fruit and Fruit-Trees of America, has thrown some light on the use of it in the orchard; and, as every farmer may be supposed to have an orchard, it may not, perhaps, be amiss for me to note here a few of his remarks.

Speaking of fruits, (p. 558,) he says, "We are not without remedy for varieties that have partially decayed in a certain district. If the trees have once been productive of excellent fruit, and are still in a sound condition, though enfeebled, a thorough renewal of their powers will again restore them to health. To effect this, a heavy top-dressing of lime, and, if the soil is light, of loamy clay, should be repeated a couple of seasons. The bark of the trunk and large branches should be well scraped," &c., &c. On p. 328, he says, "The use of lime in strong soils as a fertilizer, instead of manure, is worthy of extensive trial, because lime has a tendency to throw all fruit-trees into the production of short-jointed fruit-spurs, instead of the luxuriant woody shoots induced by animal manure." This is a hint worth remembering. Again, on p. 35, alluding to a work by Dr. Schultz, of Berlin, he writes, "The author, who has devoted considerable time to the subject, states that common salt and chloride of lime contribute greatly to the flowering of most plants, to which, however, they can only be applied with safety in small quantities. 'Salts of lime,' he continues, 'appear to produce so nearly the same effect as those of potash and soda, that it is only necessary to place lime within their reach, if there is no deficiency of manure in the shape of general food. Lime will, in the main, promote in an astonishing degree the fruiting and flowering of most plants, because calcareous salts promote evaporation and the concentration of the sap.'" Of this Downing remarks, "Although we cannot coincide with many of Dr. Schultz's views as expressed in this work, yet the remarks just quoted agree so entirely with facts that have come under our own observation, that we gladly place them before the cultivator of fruit-trees." But I will not quote more now from a work which every one may read for himself.

According to Dr. Emmons's analysis of the ash, the pear contains,

	Potash.	Phosphate of Lime.	Lime.
Sapwood,	22.25	27.22	12.64
Bark,	6.20	6.50	30.36

The apple contains,

Sapwood,	16.19	17.50	18.63
Bark,	4.93	2.42	51.57

If this be correct, it will readily be seen that a strong growing tree will exhaust the soil within its reach of a large quantity of lime in a few years. The soil may contain at first a sufficient quantity; but a tree that has grown fifteen or twenty years in one place will usually be found feeding upon short allowance, unless lime, as well as other food, has been supplied. Small crops and poor fruit commonly testify to some neglect on the part of the cultivator.

According to Professor Johnston, the different crops of grain, turnips, &c., carry away lime nearly as follows: —

25 bushels wheat,	9 lbs.	25 tons turnips,	140 lbs.
38 " barley,	15 "	9 " potatoes,	270 "
50 " oats,	9 "	2 " red clover,	126 "

No doubt that we often apply, at great expense, large quantities of animal manure to exhausted soils, when, at the same time, a small part of it, with a proper addition of lime, would produce a far more beneficial effect. But there are unexhausted soils, even in Massachusetts, which lime would greatly benefit; some heavy, sour, cold and wet, and swampy soils, to which it would be the best manure that could be applied to render them productive. The particular action of lime on soils has been well stated in the first volume of the N. E. Farmer, p. 100. But what is the best kind of lime to be used? Although all kinds may be beneficial, when properly applied, still all kinds may not be equally so. We know that, in some cases, lime thoroughly air-slaked is better than the caustic, and that old lime plastering is better than either. This, of course, depends upon circumstances. On page 275 of the Farmer, vol. i., I see it quoted from an English paper that "the best lime, for agricultural purposes, is that which is lightest, whitest, and softest to the touch; the purest and strongest lime is always the lightest."

I am inclined to think that oyster-shell lime is by far the best for agricultural purposes generally. I have never seen an analysis of it, but I have heard it stated from good authority that it contains a much greater percentage of pure lime than the common stone lime; also, that it is very white and very light. It is the opinion of most fruit-growers, I believe, that oyster-shell lime is much the best. If it contains more pure lime, why may it not be better adapted than any other to render cold and swampy lands productive? Oyster-shells in abundance may be procured in our cities, where it is usually a bill of expense to get them out of the way. If they could be collected and burned cheaply enough to make them available as manure, (as no doubt they could be, if there was a sufficient demand,) farmers and fruit-growers might be supplied with an article which they very much need, and the place of which it is not easy to supply with any other manures. An analysis of shell lime would be useful as a starting-point in the investigation of its agricultural value. It is said to contain other ingredients in addition to the lime, which are useful to vegetation. Of the amount

or value of these I have as yet no positive information. I wish to see in the Farmer an article on the value and proper use of oyster-shell lime; and if these remarks shall be abridged, or left out altogether, to make room for it, I will not complain.

Respectfully thine, N.

DANVERS, *7th mo.* 1, 1850.

For the New England Farmer.

FOWLS.

MR. COLE: The poultry mania still continues to rage; it has caused considerable excitement and speculation, has been carried on to a great extent, while at the same time it is our humble opinion that there has been "more cry than wool." Will some one tell us how or in what time will a purchaser who pays from ten to fifteen dollars for a pair of fowls be remunerably compensated?

It is an old adage that "money makes the mare go." So in this case with fowls, at the present time, a few persons have imported a new breed, some, perhaps, of superior size, and, after a considerable "puffing and blowing," they have got the "wind up," and thus induced some with whom "tin" is plenty to purchase them at an exorbitant price. What superior qualities are there about the Cochin China fowls, which have been sold at twelve dollars per pair? Certainly it did not cost near that sum to import them; and as to the size of their eggs, they are no larger than many of our common native breed; but from the external appearance or color of their eggs, they may be filled with some rich and valuable lucre — who knows? Again, the size of the Cochin China does not vary much from that of some native fowls, which may be purchased from a dollar and a half to two dollars per pair.

The Shanghae fowls are very large; but is their difference in size so much more than that of our common fowls as to augment their price from two to fifteen dollars per pair? We like to see consisteney used in all things; but it seems evident that glittering gold is the chief desire with some persons.

Correspondents are considered the bone and sinew of an agricultural paper, because experience is their teacher; but with them it sometimes happens that "chaff is mixed with the wheat."

MIDDLESEX.

WINCHESTER, *June* 27, 1850.

For the New England Farmer.

GRAFTING CEMENT—ITS APPLICATION.

FRIEND COLE: Having derived much useful information through the medium of agricultural papers like the Farmer, I sometimes venture to throw some of my ideas into the public fund; and if any thing can be gleaned from them of any worth, I shall feel rewarded for any thing I can do.

For two years past we have made grafting cement as follows: One pint of linseed oil, five pounds of rosin and one of beeswax, which we apply warm with a small painter's brush. It requires much less labor to put it on, and not so much cement is used as when applied cold in the ordinary way. In addition to the saving of time and cement, it is preferable on account of adhering more closely and remaining longer. Our success in grafting is better in this way than with clay or cement applied as formerly.

D. TABOR.

VASSALBORO, *6th mo.*, 1850.

For the New England Farmer.

GOOSEBERRIES.

MR. COLE. Sir: I send you some specimens of gooseberries that were grown on new land, in a cold situation, the soil not more than six inches deep; it has been under-drained, and, in the three years that it has been under cultivation, it has in all never had more than at the rate of four cords of good manure to the acre. The cultivation of all the specimens was alike, and, with the exception of No. 2, grew within a few feet of each other.

No. 1 is an English variety, and the best I ever raised.

No. 2 is a great bearer, and the bush a thrifty grower; it was taken from the woods five years ago.

No. 3 I got, sixteen years ago, in the garden of Richard Harbank, in Newtown, near the Kenrick nurseries; this bush grows large, is a great bearer, good only for cooking. It is bad to pick on account of thorns.

No. 4 was taken from the woods in the fall of 1848, and from many different bushes, and is no better than hundreds of others in the nursery, where they stand in rows three and a half feet by one foot in the row. I never saw any mildew, on No. 1, before this year, and this, I suppose, is owing to the bushes being so thick.

No. 5 is one of a different variety, which I brought from the Crawford Place, at the White Mountains; they are not near as good as the specimens I had last year, and for eating I think are better than any of the others. The bush grows long; it bears well generally; but there has not been much more than half a crop this year on any kind. This last kind grew on hard, gravelly land, not very favorable for this fruit, and the bushes were more than twice as thick as they should be.

Yours, &c.,

B. F. CUTTER.

PELHAM, N. H., *July* 10, 1850.

REMARKS. — We are much obliged to our friend for his box of gooseberries. The general injury to this fruit of foreign origin, and the remarkably healthy appearance of our native varieties, shows that we must rely on seedlings of our wild gooseberries, or crosses of them with the foreign. Houghton's Seedling is such a cross, and it is doubtless worth more than all the foreign kinds that have been tried in this country.

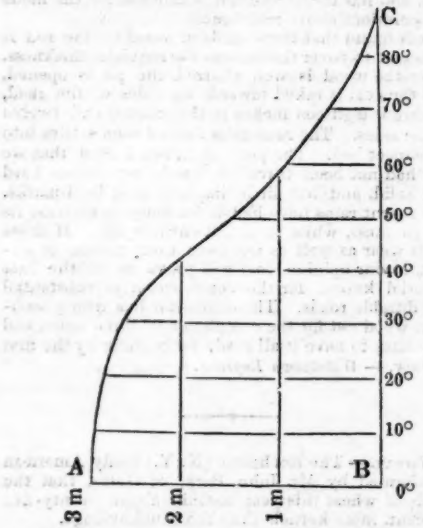
The experiments of Mr. Cutter show, that, by cultivation, our native wild gooseberries may be increased in size and production; and, as to quality, they generally rank much higher than the foreign, being of a finer texture, thinner skin, and of a milder and superior quality.

The varieties Nos. 2 and 3, sent to us by Mr. C., appear to be great bearers; and they are nearly as large as gooseberries generally sold in this market, and of superior texture. We have no doubt that superior varieties of our wild fruit would be profitable to cultivate for the market.

THE WHEAT OF OHIO. — In many parts of the state the wheat harvest has commenced, and the promise for an abundant harvest has never been better. In the south part of the state, much of the crop is already safe. It is too late now to have the crops affected by blight. The heads are well filled, and the kernel plump. — *Ohio Journal, July* 1.

THE TERM OF PERPETUAL CONGELATION.

As we ascend in the atmosphere, the temperature of the air diminishes with our altitude, by a rate somewhat affected by seasons, hours of the day, &c., but which is generally one degree of Fahrenheit's thermometer for every 343 feet of elevation. This is the average rate, for it is not uniform. Near the earth, the diminution of temperature, as we ascend, is very rapid; then again, more gradual; and again, at very lofty elevations, accelerated. By ascending, therefore, at any latitude, we reach a point where moisture is always congealed. This point is of course highest at the equator, and lowest at or near the poles; and for other latitudes, at intermediate points of elevation. An imaginary line, extending from the equator to the pole, forms the curve of perpetual congelation. In the accompanying diagram, AB represents the height of the term of perpetual congelation at the equator, — about three miles, — and the line BC represents the line of latitudes, while AC represents the curve alluded to.



It meets the surface of the earth before reaching the pole, as it is well known perpetual frost surrounds the poles. In our latitude, the altitude of the term of perpetual congelation is about nine thousand feet. The cirrus cloud, as we have before stated, consists of the frozen vapor above this limit, while the other varieties of clouds float below it.

The cause of the intense cold of the upper regions of the atmosphere is not at first view obvious, since the general law respecting heat (or hot air) insures its elevation. The upper portion of air in a room is warmer than the lower strata: and the atmosphere is heated by conduction, coming in contact with the heated earth. It is so transparent that the sun's rays are not absorbed by it, in their passage through it. Another general law, however, is here interposed to prevent the escape of this genial atmosphere, so essential to the existence of animated beings. That law is — Rarefaction causes a diminution of temperature — an increased capacity for caloric. Intense cold is produced in the vacuum of an air-pump! Sir John Herschel has recently proposed a practical application of this principle, — in which, however, he was anticipated by one of our own countrymen, — maintaining a uniform, low temperature, in an isolated space, as a room, freezing water, &c. The atmosphere decreases very rapidly in density, as the altitude increases; the heated air, rising, expands; this rarefaction causes diminution of temperature, and hence an equilibrium is soon reached. Local circumstances frequently modify the application of this principle. The frost or snow line is not always at the same elevation, in the same latitude, on different sides of the equator. In Chili, latitude 41° south, the lower limit of perpetual snow is six thousand feet. The air is sometimes very mild in elevated districts. Valleys are warmer than level plains of the same altitude, as the hills reflect and radiate heat to them. In Switzerland, spots of verdure may be found in the midst of perpetual snow and ice. The Glacier of Grindenwald, in the canton of Berne, covering twelve hundred square miles, has upon its bordera not only trees of hardy growth, but delicate verdure. It is also said, that upon the Himalayah mountains, extensive pastures exist in valleys which are fifteen thousand feet above the level of the sea. — *Family Visitor.*

TO PRESERVE FLOWERS.

Procure a flat dish of porcelain, into which pour water. Place upon it a vase of flowers, and over the vase a bell glass, with its rim in the water. The air that surrounds the flowers, being confined beneath the bell glass, is constantly moist with water that rises into it in the form of vapor. As fast as the water becomes condensed, it runs down the side of the bell glass into the dish, and if means be taken to enclose the water on the outside of the bell glass, so as to prevent it evaporating into the air of the sitting-room, the atmosphere around the flowers is continually damp. The plan is designated the "Hopean Apparatus." The experiment may be tried on a small scale, by inverting a tumbler over a rose bud, in a saucer of water. — *Selected.*

PARSNIPS.

A correspondent has written to inquire "whether we know, by our own experience, the quality of the parsnip for feeding and fattening pigs." In answer, we beg to state that at our farm at Catlands Bingmen, we have been in the habit of employing parsnips for that purpose, for some time. Upon reference to our books, we find that on the eleventh of October, 1847, we put up two shoats of eleven weeks old, and fed them on skim milk and parsnips, for three months, when they were killed, weighing two hundred and thirty-one pounds. They were well fattened, firm in flesh, and the meat of excellent flavor. The quantity of parsnips consumed by them was nine bushels each. — *Sussex (English) Express.*

We have often wondered that no account is made of this valuable root. All the world is alive to the value of the carrot, while this esculent is entirely overlooked. That the parsnip contains more saccharine matter than the carrot, or even any of the beets, we are satisfied. A very excellent wine is made of it, which we venture to assert cannot be made from any other of the whole root crop. Its estimation, as an edible for the table, also tells in its favor. And a herd of hogs, turned into a field containing bagas, beets, carrots, and parsnips, would not be long in settling the question which they like the best; and as they cannot read the *Genesee Farmer*, and are not influenced by any of our blundering theories, and trust alone to experience, and that unerring guide, instinct, in the place of reason, we are disposed to give them the credit of being very capable judges — very. — *Genesee Farmer.*

For the New England Farmer.

HAYING.

Mr. Cole: The weather is fine for haying, and we farmers are improving the time, as we think, to the best advantage. The question is often asked, What is the best method to cure hay? Some think it best to expose it to the sun until it is perfectly dry. I think it best to cut and cock it the same day, and cure it in the cock. This is preferable, as it is less work, and the hay is heavier. The crop is unusually large this season, in this vicinity.

A PRACTICAL FARMER.

Amesbury, *July* 15, 1850.

Remarks. — Hay is better for being put in cocks after partially cured; and this mode protects it from the dew. It may be opened to the air a short time, to finish drying. When opened in the usual way, but a small part of the hay is exposed to the sun, and that only a short time, as the most of it dries from exposure to the air and winds. Hay, like herbs, is injured by much exposure to the sun; and when it is nearly dry, it should be raked up immediately. The sweet fragrance wafted from the field of drying hay upon the gentle breeze, tells plainly that the fine aroma is given to the winds.

FINE TURNIPS.

Mr. Samuel Pierce, of Malden, has for many years generally raised large and fine crops of early turnips; so that he has acquired a high reputation for this crop. This season, he has the largest and finest crop of turnips of any one in this section. We have seen many loads which he has brought to market, and they have been remarkably fair and smooth. For days and days in succession, he has brought in 500 or 600 bunches, and one day last week he brought in 1000 bunches, which sold, on an average, at 87½ cents per dozen; a nice little sum for one day's product of a crop that continues long in succession.

MASS. HORTICULTURAL SOCIETY.

This association has exhibitions every Saturday, which are open to the public, without charge, from 12 to 2 o'clock. These shows are very interesting. Of late there have been fine displays of flowers; and the smaller fruits also make a prominent part of the exhibition. There is usually on the tables a variety of fruits from the hothouse. Those who exhibit fruits should have them arranged by 12 o'clock, and they are requested to let them remain until 2 o'clock.

Some years ago the weekly exhibitions of this society were free to the public, but since they have been held at the society's new hall, pay has been required of visitors, until this season. We have ever regarded the rule requiring pay of visitors to the weekly shows as a narrow policy, that would defeat its object, and have an unfavorable influence; and we are pleased that this rule is abandoned. Throw open the doors to the public weekly, and it will call in many an exhibiter, who does not wish to be charged for going to see an exhibition partially his own, nor beg the privilege of a free pass; and when comes the annual or semiannual show, there will be a large attendance. The public will be liberal in return

CHARCOAL FOR ROADS.

We had an opportunity last week of passing over a portion of the charcoal road between this place and Oconomowoc.

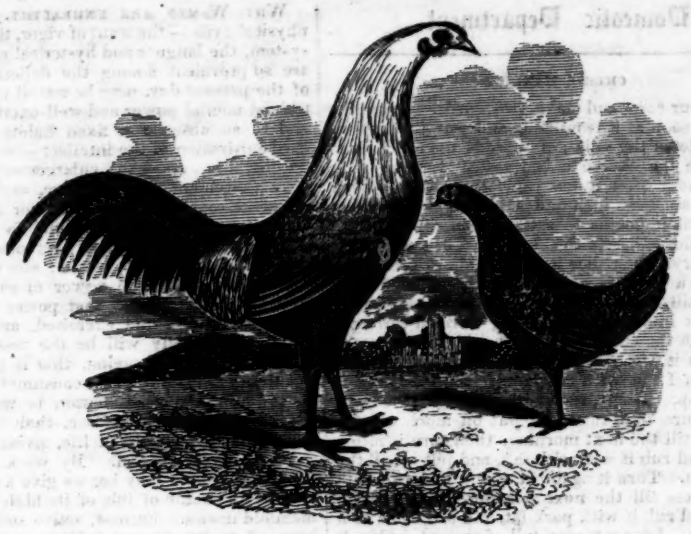
The road is now being built by chopping the wood four feet in length, and stacking it in the centre of the road bed, to the width of about six feet. It is then covered with dirt and straw, and fired in the usual manner. At first, the timber was cut into logging lengths, rolled and piled in the centre of the road. This manner of operation has not proved satisfactory, the larger timber not charring with sufficient facility to produce the necessary quantity of coal, and has therefore been abandoned for the mode of operations above mentioned.

It is found that three cords of wood to the rod is sufficient to cover the road to the requisite thickness. After the wood is well charred, the pit is opened, and the coal is raked towards the sides of the road, leaving it eighteen inches in the centre, and twelve at the sides. The road thus formed soon settles into a compact bed. The piece of finished road that we saw had not been travelled much, but it was hard and solid, and left little impression of hoof-marks. The recent rains have had a tendency to increase its compactness, while it is left entirely dry. If these roads wear as well as we have every reason to expect, in our opinion, coal will prove to be the best material known for the construction of substantial and durable roads. The contractor has nearly sufficient wood cut for the completion of three miles, and calculates to have it all ready for burning by the first of July. — *Watertown Register.*

Wheat. — The Rochester (N. Y.) Daily American is informed by Mr. John Park, of Gates, that the heads of wheat this year contain about twenty-five per cent. more kernels than the usual average.

GREAT YIELD OF HAY.

One of the handsomest residences, with one of the best, if not the best mowing lot in this state connected with it, is owned by H. W. Clapp, Esq., of this town. It is at the east end of Main Street, fronting on Main, Franklin, Church, and High Streets. It was accurately surveyed in 1845, by Osias Roberts, Esq., and found to contain eight acres and one hundred and fourteen rods. The buildings, pleasure grounds, and garden, occupy one acre and fourteen rods, leaving in the mowing lot seven acres and one hundred rods. On Monday last, Mr. Clapp, with a large number of men, commenced cutting the grass on the mowing lot, and cut and housed it all last week, in beautiful order. On weighing the hay, the product of the seven acres and one hundred rods was found to be, *twenty-nine tons, four hundred and ninety-seven pounds; or over four tons to the acre.* If there is another lot in the state that will produce the same amount of hay, we should like to hear of it. The hay was all of the best quality. — *Greenfield Gazette and Courier.*



SUMATRA GAME FOWLS.

For the New England Farmer.

Mr. Cole: Herewith you have the portraits of the above-named fowls, engraved, by Mr. S. E. Brown, No. 50 Cornhill, from a drawing made by him of a pair in possession of Mr. John Fussell, Jamaica Plain, Mass.

The progenitors of this race of fowls were, several years since, brought from the Island of Sumatra. The utmost care has been used to prevent the possibility of a cross in this stock.

This breed of game fowls is, in my opinion, equal, if not superior, to any other in the New England States. The hens are good sitters and nurses, and, for the size of the fowls, produce large eggs. The cocks have a brilliant plumage, and the hackles on the neck are very long and full-feathered, making a "perfect shawl." The body is round and plump; the neck is long and powerful; the breast full; the wings are long, and cover the thighs. The beak is hooked and stout. The thighs are large and sinewy, and well set to the body; the legs are dark-colored and long; and the claws are strong, and, with the legs, exhibit great muscular power. The belly is compact, so as not to interfere with the agility of the fowls, which they possess to a remarkable degree. The tail is very long, and by its beauty adds much to the appearance of these birds. The chickens are easily reared, and bear the climate of New England as well as those produced by any other stock.

The flesh of the game fowl is considered by all persons who have eaten it as equal, if not superior, to that of other breeds, and, for the size of the fowl, there is less offal than in any other.

For the incubation of eggs of rare and valuable breeds of fowls, game hens are to be preferred to all others. Amateurs and fanciers will find it much to their advantage to employ game hens as incubators of the eggs of the different breeds of Bantam fowls, as they are not so heavy or so clumsy as to break the eggs, and at the same time are most careful mothers, rarely or never injuring their chicks by their impetuosity, as hens of other breeds sometimes do. Game hens will most fearlessly attack cats and dogs in defence of their chicks; and I have known instances where full-grown rats have been killed by them.

Many persons are deterred from keeping game fowls by the reputation the cocks have acquired, unjustly I think, of being quarrelsome. The true bred game cock is not, my experience teaches me, quarrelsome or vindictive. He resents the interference of any cock with his vested rights and privileges, and requires an instantaneous apology for an insult, and, if his antagonist demurs, a battle is commenced without the least delay. If the opposing cock retreats, the true game does not follow, but with a loud, exulting, and derisive crow expresses his triumph; but when game meets game, death to one or both is inevitable, as true game "never retreats." This often occurs at the first flirt. I have known an instance where both cocks were instantly killed by a "brain stroke."

For the rearing of chickens a constant and regular supply of small grains is required. The best kind is wheat, being preferable to barley or buckwheat. Indian corn, of course, is not to be used, on account of its great size. I do not approve of giving to chicks any moist food, particularly Indian meal, as it will ferment in a short time and become sour. Chicks should not be compelled to fast. Their crops are small, and the power of digestion is so great that, if the food is not constantly within their reach, they are soon exhausted by the growth of feathers and bone, lose their strength, and death is the result. I have used the "screenings" of wheat for feeding chicks, and find them quite as good as wheat, although costing much less. Wheat screenings of superior quality can be procured of Earle & Thornton, No. 1 Railroad Avenue, Commercial Street.

Yours, &c.

S. BRADFORD MORSE, Jr.

To destroy Blue Flag.—A correspondent, of Pawtucket, R. I., in reply to an inquiry as to the best method of killing blue flag, recommends covering the flag four to six inches deep in common sand; then add a small quantity of manure mixed with loam. The grass will increase, and the flags disappear.

Domestic Department.

CHEESE MAKING.

I milk four cows and make two curds. I run the milk up as soon as it is milked, and put just rennet enough to fetch the milk; if there is too much it is apt to give the cheese a bad taste. Let the milk stand one hour after it has come to curd, and then cross it off about an inch and a half square, and let it stand until it begins to settle; then dip it into a cloth to drain, and stir the cloth once in a while till it is quite dry; then slice it into scalding water, and let it stand until it is quite cool; then I keep it in cold water till the next day, when I make my cheese. Then put it into warm water till warmed through, then let both the curds get almost cold before breaking. I break it with my hands quite fine, and squeeze it as dry as I can with my hands before putting it into the hoop. Then press with very little weight for three hours, then turn and put on more weight. Let it press till the next morning, then turn it into a dry cloth, and rub it well with salt, and put on all the weight I can. Turn it again at night, and rub with salt, and press till the next morning. Take it from the press and rub it with pork fat, and set it in a cool place to dry. I use a teacup full of ground rock salt for a peck of cheese.

MARY M. MACOMBER, *Hanson.*

The milk is set warm from the cow, and when turned to curd and slowly and thoroughly drained, sliced into water as warm as you can bear your hand in it. When cold it is placed in a cloth for draining, and drenched with cold water; and when well drained, placed in an earthen vessel of cold water in the cellar till the next day, when another curd is made in the same way, which, while scalding the first, is laid in upon it, when both are drained off together, and drenched as before. When dry, it is made fine and the salt well stirred in, and to twenty-five pounds of cheese add five ounces of salt, and it is ready for pressing. When it has pressed twenty-four hours, it is taken out and covered with thin cloth, snugly sewed at the edges, and put back for another day's pressing; when done, it is rubbed over with lard or fish butter, and turned daily till ripe. The cloth protects it from the flies and mould, stays it while the rind is tender, and prevents it from sticking to the shelf; and it is not a quarter the work to tend cheese made in this way as without covering. A free use of cold water in drenching the curd, removes all wheyey substances, which tend to rancidity, and much less salt is necessary; consequently the cheese is softer, especially when lightly scalded.

ELIZABETH HAYWARD, *Plympton.*

My method of making cheese is as follows: I strain my night's milk into a tin kettle, which I use to warm it in. In the morning I take off the cream that rises during the night, and add warm milk to it, stirring until it mixes. I then put it into the kettle, and while warming, stir it all together until it is as warm as when first milked from the cow. I then put in my morning's milk, and a sufficient quantity of rennet to curdle the milk in a short time. After separating the curd from the whey, I hang it in a cool place till the next day. I then put warm whey to it, and let it remain until I have scalded my second curd; I then put it together, and drain it till it is quite cool before I chop and salt it. I use ground rock salt.

ANNIE W. WOOD, *Bridgewater.*

Plymouth Co. Agricultural Transactions.

WHY WOMEN ARE UNHEALTHY. — Many of the physical evils — the want of vigor, the inaction of the system, the languor and hysterical affections — which are so prevalent among the delicate young women of the present day, may be traced to a want of well-trained mental power and well-exercised self-control, and to an absence of fixed habits of employment. Real cultivation of the intellect — earnest exercise of the moral powers — the enlargement of the mind by the acquirement of knowledge, and the strengthening of its capabilities for effort, for firmness, for endurance of inevitable evils, and for energy in combating such as they may overcome, are the ends which education has to attain; else weakness but becomes infirmity. The power of the mind over the body is immense. Let that power be called forth; let it be trained and exercised, and vigor both of mind and of body will be the result. There is a homely, unpolished saying, that it is better to wear out than to rust out; rust consumes faster than use. Better, a million times better, to work hard even to the shortening of existence, than to sleep and eat away this precious gift of life, giving no other cognizance of its possession. By work or industry, of whatever kind it may be, we give a practical knowledge of the value of life, of its high intentions, of its manifold duties. Earnest, active industry is a living hymn of praise, a never-failing source of happiness; it is obedience, for it is God's great law for moral existence. — *The Physical Training of Girls at School, by Madam de Wah.*

Youth's Department.

COUNSELS FOR THE YOUNG. — Never be cast down by trifles. If a spider break his thread twenty times, twenty times will he mend it again. Make up your minds to do a thing, and you will do it. Fear not, if a trouble comes upon you; keep up your spirits, though the day be a dark one.

Mind what you run after! Never be content with a bubble that will burst, or firewood that will end in smoke and darkness. Get that which you can keep, and which is worth keeping.

Fight hard against a hasty temper. Anger will come, but resist it strongly. A spark may set a house on fire. A fit of passion may give you cause to mourn all the days of your life. Never revenge an injury.

If you have an enemy, act kindly to him, and make him your friend. You may not win him over at once, but try again. Let one kindness be followed by another, till you have compassed your end. By little and little, great things are completed; and so repeated kindness will soften the heart of stone.

Whatever you do, do it willingly. A boy that is whipped to school never learns his lessons well. A man that is compelled to work, cares not how badly it is performed. He that pulls off his coat cheerfully, strips up his sleeves in earnest, and sings while he works, is the man for me.

Evil thoughts are worse enemies than lions and tigers; for we can keep out of the way of wild beasts, but bad thoughts win their way every where. The cup that is full will hold no more; keep your heads and hearts full of good thoughts, that bad thoughts may find no room to enter. — *Selected.*

A good farmer is generally a true friend, an affectionate husband, an excellent parent, and an honest man; and it is an established axiom that a *well-tilled field* denotes not only care and industry, but the supervision of an enlightened mind.

Health Department.

Importance of Flannel. — The following extract, from Robertson, on Diet and Regimen, should not be overlooked by emigrants to California: —

"Sir George Ballingal, in his lectures on military surgery, adduces the testimony of Sir James Macriger to the statement that, in the Peninsula, the best clothed regiments were generally the most healthy; adding that, when in India, he witnessed a remarkable proof of the usefulness of flannel in checking the most aggravated form of dysentery, in the second battalion of the Royals. Capt. Murray told Dr. Combe that he was strongly impressed, from former experience, with a sense of efficacy of the protection afforded by the constant use of flannel next the skin; that when, on his arrival in England in December, 1823, after two years' service amid icebergs on the coast of Labrador, and the ship was ordered to sail immediately for the West Indies, he ordered the purser to draw two flannel shirts and pairs of drawers for each man, and instituted a regular daily inspection, to see that they were worn. The precautions were attended with the happiest results. He proceeded to his station with a crew of one hundred and fifty men; visited almost every island in the West Indies, and many of the ports of the Gulf of Mexico; and notwithstanding the sudden transition from extreme climates, returned to England without the loss of a single man, or having any sick on board on his arrival. It would be going too far to ascribe this excellent state of health solely to the use of flannel, but there can be little doubt that the latter was an important element in Capt. Murray's success."

Mechanics' Department, Arts, &c.

Sun-dried Brick Houses. — A correspondent of the Artisan thus describes the construction of a house of this description recently erected in Smithtown, Long Island: —

The house that I have erected, I can assure you, is most substantial and warm. The walls are nine inches thick. The material of which they are built is rather novel to many, as they are built of unburnt brick, nine by twelve inches, and five inches thick. They were formed in moulds; the earth of which they were made, was dug from my cellar and foundations. The earth thus dug up, after being properly tempered, was put into strong moulds, and then pressed with a powerful lever press, and then turned off into the sun to dry. They are called *pies*, or sun-dried brick.

My main building is twenty-three by twenty-six feet, and twelve feet high. The kitchen is sixteen by twenty-three feet, and nine feet high. The height here set down is taken from the top of the first tier of beams. I dug my foundations two feet deep, and rammed the bottom, then filled in, and rammed, as I filled in, *cobble* stones the size of a walnut, or less, until the trench was full. Then I built hard-burned brick, one foot high, on which I laid my first tier of beams, and there commenced my pies wall. It took about five thousand pies of sun-dried bricks to build the said house. Had I commenced to build earlier in the season, I should have made all my partition walls of the same material; but as it was, my dividing walls I have made in the usual manner. I finished the outside first with a scratch coat of lime and sand, over which I put a light coat of cement, which makes the walls impervious to water or damp.

I plastered upon the wall, inside and out, without lathing. The plaster sets remarkably quick and hard. The whole expense of mason work, from foundation to garret, for laying up the walls, building up a cellar six feet in diameter, and three stacks of chimneys, lathing and plastering inside and out, was seventy dollars. There are ten rooms. I could now make brick enough for such a house for, I think, *thirty-five* or *forty dollars*. The question will, no doubt, be, as it has been already often asked, Will it stand the frost? Last fall I could only say we will *see*; but now I say, if it stood through last winter like a rock in the sea, against which the waves have been lashing for ages without effect, so I say of my walls; if the hard, pelting rains of the past winter, and which were often succeeded by hard frosts, did not affect my house, I think I can risk it in perfect safety for all time to come.

It will easily be perceived, by what I have written, that there is a great economy in building walls with this material. J. FISHER.

Smithtown, *April*, 1850.

Glass Water Pipes. — We are glad to know that glass tubes are now coming into a very general use for conveying water. Mr. Wm. T. De Golyer, of Schenectady, N. Y., has a patent for making tubes of such a form as to couple different lengths together, and form glass conductors for water, of any length. About 1000 rods of glass pipes of different diameters have already been laid down, and Mr. John Matthews, of First Avenue, this city, has tested the strength of a pipe one and one quarter inch in diameter, made at the Albany Glass Works, (Mr. Mayer, 139 Front Street, New York, is agent,) and found it capable of standing a pressure of two hundred pounds to the square inch, or a column of water four hundred and fifty feet high. Mr. Wilson, of Hastings, a few miles out of the city, has connected these glass tubes with an hydraulic ram, to stand a pressure of eighty feet high. After the joints were cemented only four days, the water was let on, and the joints were found perfectly tight. It is well known that glass is anti-corrosive, and resists all action of the elements of air and every kind of water: it is therefore indestructible, and when kept from the action of frost, it may be considered as enduring as the everlasting hills By them water is conveyed in all its purity from the fountain, as the interior is too smooth to allow any weeds or vegetable formations to adhere to it. We do not know the price for laying down different sizes of pipe, (although they are very cheap,) but Mr. De Golyer or Mr. Mayer will no doubt promptly furnish all necessary information on the subject, if letters are addressed to them, post paid. — *Scientific American.*

GRASS LANDS. — THE ADVANTAGES OF RE-SEEDING.

The difference between crops of grass on old meadows and pastures, and those which have been lately seeded, is so obvious as to attract the attention not only of every farmer, but of every person who has an opportunity of making the comparison. This difference may not be quite so apparent this year in New York, where there have been abundant rains, and where report says that grass looks finely; but in the west, where we have been travelling for several weeks past, there has been abundant opportunity to make the comparison between the two systems. The severe and protracted drought, which has for several weeks prevailed every where in the west, from Buffalo to the Mississippi River, (which has now fortunately been relieved by abundant rains,) has been a severe trial to the old meadows and pastures, many

of which will in consequence produce very limited crops. This is ever the case in dry seasons, except perhaps on peculiar soils or meadows subject to the overflow of streams.

How different the case with newly-seeded fields, and especially where plenty of clover has been sown! The vigor of the growing crops, the deep green color which it presents, even in the most trying seasons, and especially the abundant yield which it affords, are all convincing proofs of the benefits to be derived from the frequent breaking up and re-seeding of grass lands. We are aware that there is much diversity of opinion among farmers, as to how far this practice should be carried, and on what soils it is to be practised; but we think that those who have looked carefully to the product of old and newly seeded fields for a term of years, will agree with us that it is far too frequently neglected.

Some soils, such as river bottoms and lands subject to overflow, and possibly others, under peculiar circumstances may profitably remain permanently in grass. With those who advocate such a practice we are not disposed to debate the question. They are frequently, though perhaps not always, right. Other lands, well adapted to grass, if well seeded, may profitably be suffered to remain many years without disturbing the sod, especially if care is taken to give them an occasional top-dressing with manure — ashes, plaster, or some other fertilizer. The practice is more admissible if the soil, as is often the case, is hard to cultivate, stony, and difficult to secure an even surface by the removal of stones, &c. In such cases perhaps a slight diminution of crop, or an increased outlay for manure, can be submitted to, rather than go to the trouble and expense of breaking and re-seeding. We doubt, however, whether the practice has not obtained of continuing even such lands too long in grass.

Another class of lands well adapted to grass, but at the same time easy of tillage, are frequently continued in meadow or pasture long after they have ceased to produce a bountiful crop, and when the owner's interest would be much better consulted by a judicious rotation. As a general rule, lands which, at first seeding, will produce two tons of hay per acre, degenerate in a few years to half that quantity — when, by breaking up and taking off one hoed crop, and one of small grains, both of which will afford a profit, the land may be seeded anew and produce as well as at first. The occupant of such lands is too apt to have a short supply of both straw and grain, and especially of roots, for his stock, when the course we have recommended would afford him just the supply he needs, and enable him to keep far more stock, even were his grass crop no better, which we are not at all prepared to admit.

But the lands which suffer most for want of frequent breaking up and re-seeding, are the dry, gravelly, or sandy soils, which, although they produce good crops of grass for two or three years when first seeded, soon "run out," and cease to give that bountiful return which a judicious system may secure. Such lands are generally well suited to the growing of grain of some kind, and frequently peculiarly calculated for a rotation of the various crops in connection with clover and timothy. It is this class of soils which demands the adoption of the system of rotation which we have suggested, and which is now so successfully practised by many farmers in all sections of the country. A rotation embracing four or six crops, of which two or three shall be grain and three or four grass, will secure at all times good grass crops, and at the same time enable the soil to recover from the exhaustion of the grain crops before it is again appropriated to such purposes. We will not now submit any plan of rotation, but every farmer can judge for himself what system is best suited to his soil and circumstances. Our object will have been gained, if we succeed in fixing the subject in the minds of those farmers whose grass crops are this year suffering so severely, and induce them to look for the remedy, in future, to a more systematic and well-digested rotation of crops, and especially to the proper seeding down to grass of their lands intended for that crop. The quantity and kind of seed is a subject of importance, and one which may well afford a text for a separate article. — *Rural New-Yorker.*

ON THE DIGNITY OF LABOR.

(*From a Speech of the Bishop of Oxford, at the Westminster Meeting in Aid of the Exhibition of the Works of Industry of all Nations, to be held in* 1851.)

I believe that the tendency of this exhibition is to benefit the working classes. I am not one of those who have any secret misgivings as to there existing any intestine warfare between Christianity and science or manufactures. I know that there are men upon whose excellence it would be needless for me to enlarge who do entertain such apprehensions. In the quiet of their learned study, conversing with times that are gone by, they are startled by the din of the busy age, as it rises through their windows. They listen with apprehension and dislike to the voice of the age in which their lot has been cast, and they call it a mechanical age, and find with it other such like faults. Now, I do not sympathize with their opinions. I deny, and hold it as unworthy of Christianity to suppose, that there can be any opposition whatever between the fullest development of those faculties with which Almighty God has furnished man, and that Christian faith which is to train those faculties to their highest ends. When from these abstract considerations I turn to the actual world around me, and survey these mechanical inventions, I see in many instances beneficence marking these very mechanical improvements, and they have a direct tendency to ameliorate the condition of the lower classes of the people, and to bring within their reach advantages which were before restricted to the richer grades of society. And then, moreover, whether we regard the results of mechanical science or the products of art, I think we shall be convinced that there is a connection between perfection in these and the faith of Christianity. As an historical fact, it is plain that there never was a country or a time which could long maintain preëminence in art or science divorced from Christianity. I believe that the history of all countries will show this.

Look for a moment at the Chinese. We find that nation, so eminently gifted with those special faculties which would naturally make them superior in all the mimetic arts, in a state of perpetual stagnation, having lost even the power of using the inventions of former ages. And this is so because they want the spring which Christianity alone can give to set all their faculties in exercise, and to develop them to their highest standard of perfection. I think it, therefore, my part, holding the place which I do in the Christian church, to come forward, not with any secret misgivings; not with any cold, injurious doubts or hesitations; but heartily, and I may say, rejoicingly, not in spite of my Christianity, to aid according to my powers in the development of science and the mechanical arts. This it is my firm belief that it is my duty to do, and I feel that I am on my right ground when I stand here and address these observations to you. But I feel, moreover, that it is possible a nation may be too much occupied with the works of art, and with the triumphs of science; and that in attending too exclusively to these, it may lose that eternal flow of life, without which all external devel-

opments are worse than useless. I see, or think I see, that the proper attribute of Christianity, and of a Christian teacher, is, that they should mingle in works like these; and that, in doing so, they should try to call attention to the wants and the necessities of the producers of these works, and to remind the nation that, after all, man is greater than his works, and the workman superior to his fabric. So this exhibition calls attention to the dignity of labor; it sets forth in its true light the dignity of the working classes; and it tends to make the other people feel the dignity which attaches to the producers of these things.

THE ENGLISH RACE-HORSE.

The English race-horse boasts of a pure descent from the Arabian, and under whatever denomination the original stock of our thorough-bred horses have been imported, namely, as Turks, Barbs, or royal mares, there can be no doubt they were selected by the patrons of the turf, and by their agents, during the reigns of James I., the two Charleses, James II., and the commonwealth; and whether they were brought from Barbary, Turkey, or the continent of Europe, they were considered as the true sons and daughters of the desert. The first Arabian ever seen in England was imported by Mr. Markham, in the reign of James I., and the first foreign mares of any note were brought over by the agents of Charles II., under the denomination of royal mares. The change of climate, the pasture, and extreme care and attention in breeding by the best stallions, (and never forgetting the maxim that "From the brave descend the brave,") have wonderfully increased their size, their strength, and their powers of endurance; and it is generally believed, by the most learned men of the turf, that a first-class English race-horse would give eighty-four pounds to the best Arabian which can be found, for any distance under ten miles. In 1828, a match was made at Calcutta between the English horse Recruit, carrying one hundred and forty-eight pounds, and the best Arab at the time in India, Pyramus, carrying one hundred and fifteen pounds, two miles. Recruit had been a very short time in India, and had tender feet, which disabled him from taking strong work, notwithstanding which, he won in a trot.

The clearest proof of the improvement which has taken place in the English race-horse, is the fact that no first nor second cross from the imported Arab, with the exception of the produce of one mare by the Wellesley Arabian, (Fair Ellen,) is good enough to win a fifty-pound plate in the present day; whereas, in 1740, our best horses were the second and third crosses from the original stock; and we have no reason to assume that the Arabian horse of 1850 has degenerated from his ancestor of 1730. The most distinguished progenitors of the English race-horse are the Byerly Turk, the Darley Arabian, Curwen's bay Barb, and the Godolphin Arabian; and no horse of any eminence has appeared in England, in the last hundred years, which does not inherit their blood. Of the two former, we know very little; they were the sires of Basto, and of Flying Childers; but the blood of the Godolphin Arabian is in every great stable in England. He was a thick-necked, heavy-shouldered, over-topped horse, without apparently a single good point adapted to racing qualifications. Goldfinder and Eclipse, both foaled in 1764, were considered the most extraordinary horses in the last century — Sir C. Bunbury always asserted that Goldfinder was the best horse. The celebrity of Eclipse, as a stallion, has contributed to his fame far more than his public running, which only lasted two years. Horses of this era were rarely put into training before they were three years old; some never appeared until they were five years old; and all the great matches and sweepstakes were made for long distances, four, six, and eight miles. Many writers have, therefore, imagined that the horses, in olden times, were more adapted to stay a distance, than our present breeds; but it does not follow, because it was the fashion to run long distances in 1750, that the horses of that day had greater powers of endurance. Heavy weights and long courses were in vogue, because it was the custom for owners and amateurs to ride in the last half mile with the leading horses; a feat not very difficult of attainment, considering that the race-horses had run four miles before they joined the party. Our experience teaches us that the first cross from the Arab frequently show speed; but there are very few instances of the first or second cross which can run beyond the distance of one mile in good company. I, therefore, suspect that the form of the best race-horse of 1750 is inferior to that of a common plater of the present day.

It is computed that there are upwards of two hundred thorough-bred stallions, and one thousand one hundred brood mares, which produce about eight hundred and thirty foals annually; of these are generally three in the first class of race-horses, seven in second class; and they descend gradually in the scale to the amount of four hundred and eighty, one half of which never catch the judge's eye; the remainder are either not trained or are found unworthy at an early period.

Referring again to shape and condition, a good judge may be deceived as to the individual condition of a particular horse. There are horses which run best apparently lusty, and others are only up to the mark when they carry no flesh, and with very slight muscular developments. There are very few horses which require the same work, the same food, and the same physic. Thick-winded horses, with strong constitutions, may be sweated every five days during their preparation, and will take three times as much work as some delicate mares and geldings, of which there are many that never want a sweat. One horse cannot gallop when the ground is deep; another, with thin feet, cannot move if the ground is hard; and a heavy fall of rain will upset scientific calculations. Mares seldom run in their best form before the month of August; and geldings are considered to be best in the spring. — *Rous.*

SEX OF EGGS.

During the last summer, says a correspondent of the Plough, Loom, and Anvil, I wanted to raise a stock of poultry from a favorite hen and cock. They were of the black-breasted red game breed. The cock was purely bred, but the hen was a little crossed. The eggs she laid were of a deep buff color, and as she was the only hen I had which laid yellow eggs, they were easily collected. When I had twenty-six eggs, I put thirteen of the largest under a brood hen to be hatched; one egg got broken, and the other twelve had chickens in them; one, however, died in the shell, and so the number was reduced to eleven. Of these, one died before I could ascertain its sex; of the ten remaining, eight were cocks and two were pullets. The thirteen smaller eggs I also put under a brood hen, and she hatched me ten chickens. Of these, eight were pullets and two were cocks. There is no difference in the shape of the eggs laid by the same hen; in size they vary but little. I observe this peculiarity, that although the hen had yellow legs and the cock black, yet, throughout four broods, which I have had from the same hen and cock this summer, every yellow-legged chicken has proved a cock, and every black-legged one a pullet.

MEDICINAL QUALITIES OF THE GRAPE.

The New York Commercial, in an article on the grape, says this fruit is one of the best and most wholesome medicines. This affords an additional inducement for the culture of this popular fruit. The Commercial says, —

"In the vineyard districts of France, Spain, and other vine-growing countries, the medicinal properties of the grape are well known and highly prized. The free use of this fruit, as we are advised, has a most salutary effect upon the animal system, diluting the blood, removing obstructions in the liver, kidneys, spleen, and other important organs, giving a healthy tone and vigor to the circulation, and generally augmenting the strength of the entire animal economy. In diseases of the liver, and especially in that monster compound affliction, dyspepsia, the salutary and potent influence of a 'grape diet' is well known in France. The inhabitants of the vineyard districts are never afflicted with these diseases; which fact, however, alone would not be conclusive evidence of the medicinal qualities of the fruit of which they freely partake, since peasant life is rarely marred with this class of ailments; but hundreds who are thus afflicted yearly, resort to the vineyard districts for what is known as the 'grape cure,' and the result proves to be a cure, except in very long, protracted, and inveterate cases, which are beyond the reach of medicinal remedies. The invigorating influence of the ripe grape, freely eaten, upon the feeble and debilitated, is very apparent, supplying vigor and the rose hue of health in the stead of weakness and pallor, and this by its diluting property, which enables the blood to circulate in the remoter vessels of the skin, which before received only the serous or watery particles.

"In these remarks, however, we must be understood as speaking of the fruit when perfectly ripe. Unripe grapes, like all unripe fruits, are detrimental to health, and derange the digestive organs, and those depending upon, and sympathizing with them."

IMPROVEMENT OF DOMESTIC ANIMALS.

Few are aware how susceptible of improvement is the living machinery which elaborates *milk* for nearly every family in the Union. There is a reliable account in this report, of a dairy of forty-one cows kept in the state of New York, which yields sixty-two dollars in butter, cheese, and milk, as the product of each cow a year. From the returns of the last state census, it is safe to say that 1,100,000 cows are now milked in that state, which are supposed to yield about twenty dollars per head. To improve these up to an average annual product of thirty-one dollars each, (that is, to one half what the best large dairies in the country now yield,) would add $12,100,000 to the income of the citizens of a single state. This gain by the improvement of one kind of rural machinery would be equivalent to creating a capital of $200,000,000, and placing the money where it would yield over six per cent. interest in perpetuity. If the thirty millions of sheep in the United States gave as good returns in wool for the food consumed as the best 100,000 now do, it would add at least 60,000,000 pounds to the annual clip of this important staple.

In one of his letters to Sir John Sinclair, General Washington says, in substance, "that at the time he entered the public service in the war of the revolution, his flock (about 1000) clipped five pounds of wool per fleece. Seven years after, when he returned to his estate, his flock had so degenerated that it gave an average of only two and a half pounds per head, which was the common yield of Virginia sheep then, as it is now."

Although the numerous importations of superior sheep, cattle, horses, and swine, have greatly benefited the country, it must be admitted that much has been lost by suffering improved animals to deteriorate. Every wool-grower should ponder well this fact. If two and a half pounds of wool will pay the whole cost of keeping a sheep a year, five pounds will pay one hundred per cent. profit on that cost. Washington was eminently a "book-farmer," and was anxious to gain knowledge from the educated agriculturists of Europe and his own country. His overseer believed in keeping sheep as his father did, and was opposed to all innovations in husbandry.

There are now not far from 6,000,000 horses and mules in the United States; and it is not too much to say that, in a few generations, these animals may be improved full thirty dollars a head, on an average. If so, the gain by this increase of muscular power, and its greater durability, will be $180,000,000. If we study critically the machinery for converting grass, roots, and grain, into beef and pork, the difference is found to be still more striking. If the facts relating to this subject were spread before the people, great improvement would soon follow, and all classes share equally in the profits of more productive labor. — *Patent Office Report for* 1849.

ATTACHMENT TO A PLOUGH FOR TURNING UNDER GREEN CROPS, &c.

I will describe to you a fixture which I use for turning under clover, peas, weeds, &c., which I think preferable to a roller or an ox-chain attached to a swingletree. Saw off a block from some hard, durable, and heavy wood, say about ten inches long, and three and a half or four inches in diameter; then take a piece of trace-chain, about three feet long, confine one end to the block by driving a small staple in the end, having first passed the staple through an end link of the chain. Point the other end of the block, and attach a larger chain in the same manner to that. Tie the short chain (attached to the square end of the block) to the rod which passes through the mould-board and beam of the plough, by wrapping it around (the beam) at that place; drop the block in the bottom of a furrow which has been already opened, (of course on the mould-board side,) draw up the long chain, and attach that to the clevis pin or clevis; be sure that you have both chains just tight enough to permit the block to lie in the furrow below; allow no slack. The short chain gathers the clover, weeds, &c., and bends them down; the weight of the block prevents the chain from rising, and the plough laps the dirt over the weeds, whilst they are in a recumbent position. I am this day turning under weeds as high as the heads of the ploughmen, which are almost wholly concealed. H.

Nansemond County, Va.

— *American Farmer.*

Medicine for Horses. — Many seem to imagine that the constitution, physiology, and diseases of the horse are different from those of man and other animals. This is a mistake. The common diseases of the horse are similar to those of men; and the same medicines, in those diseases, are as useful to one as to the other. Some writer states that the doses should be from eight to twelve times larger when the horse is the patient. The anatomical structure of the stomach is such as to forbid his vomiting, so that an emetic should never be given.

EARLY-BEARING FRUIT-TREES.

Friend Holmes: How soon ought a tree, of suitable size for setting, to produce fruit, under ordinary circumstances? This is a question often asked, but vague and difficult to answer; still, it may be somewhat modified by the following conditions: —

1. *Varieties.* — It is well known that certain varieties of the apple, pear, plum, and cherry are dwarfish by nature, bear abundantly while quite young, and consequently they are rather short lived, but well calculated to satisfy *Yankee impatience.*

2. *Artificial Means.* — Trees which are naturally of coarse growth and lofty habits are often brought early into a bearing state, by bending the branches so as to compress the sap vessels, and prevent rapid growth, girdling, &c., or any method to check the descending sap, and cause the formation of fruit buds.

3. *By assisting Nature.* — Trees are endowed by nature with the necessary organs of fructification, and man can do much to aid in developing those organs, by furnishing them with sufficient nourishment, containing the specific food, or the elements of the tree and its fruit — by judicious pruning and training, so as to form low and open tops, and strong, vigorous branches. Where there is a disposition for a long and slender growth, the heading-down or shortening-in system is admirably calculated to induce fruitfulness.

If trees are in a vigorous condition, well trained and well set, three years from the graft or bud, they ought to produce fruit in from three to five years after setting. It is requiring too much to expect a young tree to produce a full crop of fruit, and at the same time to make rapid growth, soon after setting. We *must* dispense with one, and, if we look to the real value of the tree, it will be the former.

To those who have fruit on trees which were set last spring, I would say, Be sure and pick it off, or at least the most of it, if you look for future profit. A few days since, I observed an apple-tree, set last spring, with seventy apples growing on it. I immediately picked one half; the remainder would be quite too many to remain, under ordinary circumstances; but the tree was well set and mulched, and it is now making a fine growth.

We once had a small pear-tree, about four years from the graft, which set a very full crop of fruit, and viewing it with feelings somewhat allied to those of the parents of a precocious youth, who pride themselves with the idea of astonishing their neighbors with an *enfant prodige*, we suffered it to rally its whole physical strength in ripening the crop; but it was too much for *vegetable nature* to endure. It lingered a year or two, and then died. SIGMA.

Vassalboro'.

— *Maine Farmer.*

ON THE GOOD EFFECTS OF MULCHING.

It seems to me, that when any one has found a practice in horticulture not generally known to be of great value, he owes it to his neighbors and fellow-laborers in the cause to make it public.

I tried the value of *mulching* — i. e., covering the soil over the roots of trees with straw, litter, seaweed, or whatever else may be most convenient for retaining the moisture, keeping the earth cool, and preserving a uniform temperature — pretty extensively last year. I not only mulched newly-transplanted trees, but garden vegetables, egg plants, okra, &c. Encouraged by the good results, I covered the ground under melons with straw; and this year I am trying it with various flowering shrubs and plants.

The great advantage of mulching is unquestionably for transplanted trees. I think it may be safely said, that a tree having only one third of its original roots left, (and the top, of course, shortened back in proportion,) — such a tree as would die, nine times out of ten, with common treatment of watering, &c., — may be invariably saved by mulching. Watering the trees that have been transplanted every day or two, for a month or six weeks afterward, as I have seen many do, is a matter of no small labor and cost. It helps to kill the tree, I am satisfied; if not by the constant and violent alternations of wet and dry, which the tree suffers in this climate, then with the hardening and baking of the ground which it causes. On the other hand, the tree once planted, it can be mulched (if the materials are at hand) in five minutes; and from that time forth it demands no more attention, no carrying of water, no stirring of the ground. The ground is also kept in that state of steady moisture and coolness most favorable to the growth of new roots; and, if there is any vital power in the tree, it is sure to show itself in this way.

As to the importance of preventing the soil from parching up in the summer, especially when you are raising somewhat delicate plants, every one can see it for himself without demonstration. I have found it easy to cultivate some garden favorites in this way that gave me a good deal of trouble before I tried it. Indeed, so great is its efficacy that some German agricultural writers, as you are doubtless aware, have not hesitated to take the ground that covering the earth with a coat of straw acts more beneficially upon a crop than giving it a coat of manure of any description. Although I am not prepared to take this extreme ground, I am confident that mulching, especially to the fruit and ornamental tree-grower, is a practice of great value, and much too little understood by most persons. Yours,

A CONSTANT READER.

Dutchess County, N. Y., *May*, 1850.

Remarks. — Our correspondent is not a stronger advocate of the advantages of mulching than we are. Indeed, we have, for the sake of experiment, covered a piece of ground with straw in the German manner, in a small vineyard of about an acre in our own premises, in order to notice if there is any other value in the application than that arising from maintaining the soil in the best condition for growth. — Ed. Hort.

— *Downing's Horticulturist.*

DIVISIBILITY OF MATTER.

A remarkable instance of the divisibility of matter is seen in the dyeing of silk with cochineal, where a pound of silk, containing eight score threads to the ounce, each thread seventy-two yards long, and the whole reaching one hundred and four miles, when dyed scarlet, does not receive above a drachm additional weight; so that a drachm of the coloring matter of the cochineal is actually extended through more than one hundred miles in length; and yet this minute quantity is sufficient to give an intense color to the silk with which it is combined. — *Family Visitor.*

A Splendid Plant. — At a recent sale in England of exotics, a rhododendron arboretum (elegantinum) was exhibited, which had upwards of one hundred and fifty blossoms. The plant measured seventeen feet in circumference, was six feet in diameter, and six feet in height.

NOTICES OF PUBLICATIONS.

Horticulturist. — The July number contains a variety of valuable matter, and a beautiful engraving of a "Rural School-House." This subject should receive more attention. In building school-houses, convenience is often sacrificed to a too rigid economy, and generally, or, we might say, almost universally, no attention is paid to embellishment. This work is published by Luther Tucker, Esq., Albany, N. Y. Joseph Breck & Co., Agents, Boston.

Ohio State Fair. — A friend has handed to us a pamphlet containing a list of the premiums, and the regulations, with the names of the awarding committees of the First Annual Fair of the O. S. Board of Agriculture, to be held at Cincinnati, Sept. 11, 12, and 13. It is expected that this will be a great show, and that it will be attended by an immense assemblage of people.

Catalogue of Short-Horn Cattle, contains an account of thirty-three head of Short-Horns, owned and mostly bred by J. F. Sheafe, which will be sold at auction on the 29th day of August, at one o'clock, at High Cliff, one mile above New Hamburg, Dutchess Co., N. Y.

LOW-HEADED FRUIT-TREES.

By having low-headed fruit-trees, the sun, which is, perhaps, in our hot and dry summers, the cause of more disease and destruction in fruit-trees than all other diseases together, is kept from almost scalding the sap, as it does in long, naked trunks and limbs. The limbs and leaves of a tree should always effectually shade the trunk and keep it cool. The leaves, only, should have plenty of sun and light; they bear and profit by it. If trees were suffered to branch out low, say within one or two feet of the ground, we should hear very much less of "fire blight," "frozen sap blight," black spots, and the like. The ground is always looser, moister, and cooler, under a low-branching tree than under a high one. Grass and weeds do not grow a hundredth part so rank and readily, and mulching becomes unnecessary. The wind has not half the power to rack, and twist, and break the tree, and shake off the fruit — a matter of no inconsiderable consequence. The trees will be much longer lived, and more prolific, beautiful, and profitable. The trees are more easily rid of destructive insects, the fruit is much less damaged by falling, and the facilities for gathering it are much greater; there is less danger in climbing, and less of breaking limbs. The trees require less pruning, and scraping, and washing; and the roots are protected from the plough, which is too often made to tear and mutilate them.

IMPROVEMENT IN SUGAR REFINING.

The London Morning Herald states that an important improvement has taken place in the manufacture of sugar. It says, "By means of the now well-known patent for drying by centrifugal force, and the aid of a few simple adjuncts, sugar, which took from three to five weeks to refine, is now done in as many minutes. Incredible as this may seem, the whole process, with the result here stated, has been witnessed by our informant at the sugar-houses of Messrs. Finzel & Son, at Bristol. Moreover, sugars altogether unsalable in our markets were converted in a few minutes into an article worth about $8,48." — *Am. Artisan.*

For the New England Farmer.

REPLY TO A FRIEND, WHO ASKED, "ARE YOU AN ADMIRER OF NATURE?"

BY MRS. E. C. LOOMIS.

Yes, I love Nature! On its varying face
I gaze, and ne'er grow weary. There I trace
The hand of God, which fashioned all, and 'neath
The azure dome of heaven alone I bow
To worship Him. 'Tis June! The balmy breath
Of many flowers is round me. Roses fling
Rich odors on the soft south wind, and bend
Their graceful heads, as if to woo its sweet
Caress. The countless blossoms that look up
From grassy coverts with their starry eyes,
Are gentle messengers of love. They tell
Of one more beautiful than they. O, list
Their gentle teachings; pass not carelessly
The lowliest of them all.

Come forth with me,
And revel in the loveliness which decks
The brow of Nature. We will roam at will
O'er meads with flowery carpets. We will trace
The streamlet's course, and listen to its melody.
The birds with their sweet minstrelsy shall cheer
Our walk, and from the shadowy grass we'll pluck
The luscious berries nestling there. I'll lead
You to my favorite haunt — a blooming bower,
Where moss and violets mingle, and the sheen
Of sunlight falls, in flickering beauty, through
The boughs of never-fading green. 'Tis here
I sit and while away the summer hours,
With book or needle, or in converse sweet
With those I love. A banquet rich and rare
Doth Nature spread for me — a pure delight
To fashion's votaries unknown, amid
The pomp of city life.

Lebanon, *June* 24, 1850.

THE OLIO.

A man was brought up by a farmer, and accused of stealing some ducks. The farmer said he should know them any where, and went on to describe their peculiarity. "Why," said the counsel for the prisoner, "they can't be such very rare breed — I have some very like them in my yard." "That's very likely, sir," said the farmer; "these are not the only ducks of the sort I have had stolen lately."

The presbytery of Bethel, Pa., has resolved that marriage on the Sabbath is in violation of the fourth commandment.

Courage consists not in hazarding without a cause, but being resolutely minded in a just cause.

TERMS. — The New England Farmer is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at $1 a year, or five copies for $4, payable in advance. It may be elegantly bound in muslin, embossed and gilt, at 25 cents a volume, if left at this office. As it is stereotyped, back numbers can be furnished to new subscribers.

The Postage

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

STEREOTYPED AT THE
BOSTON STEREOTYPE FOUNDRY.